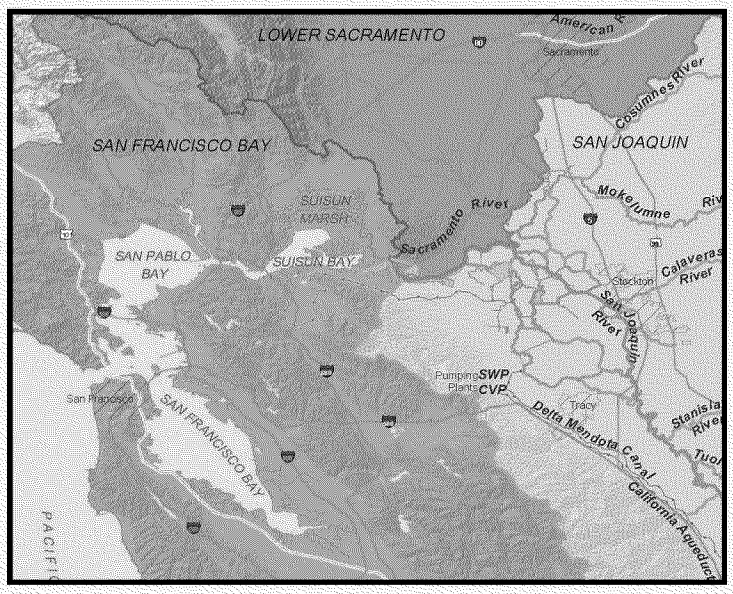
Advance Notice of Proposed Rulemaking—January x, 2011
Water Quality Issues in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
U.S. Environmental Protection Agency



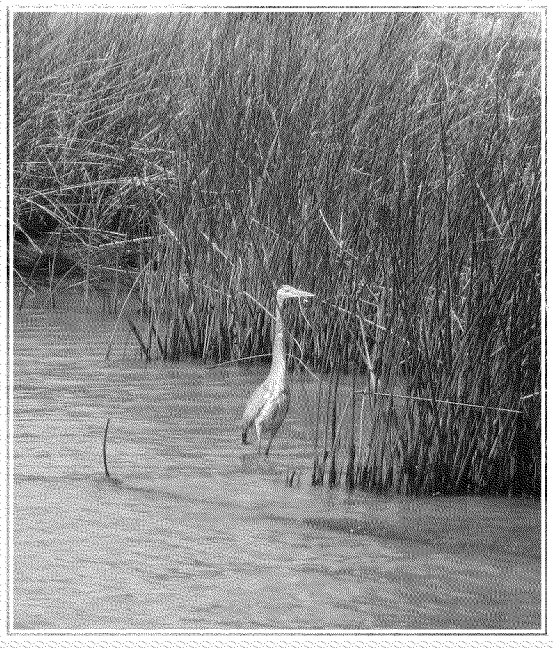
The U.S. Environmental Protection Agency Region 9 (EPA) published an Advance Notice of Proposed Rulemaking (ANPR) on January x, 2011. This ANPR initiates an EPA evaluation of the effectiveness of current programs designed to protect water quality and aquatic species habitat in the San Francisco Bay/ Sacramento-San Joaquin Delta in California (Bay Delta Estuary). The ANPR solicits public input on how EPA and the State of California can achieve water quality and aquatic resource protection goals in the Bay Delta Estuary.

The ANPR discusses water quality contaminants (including ammonia, selenium, and pesticides) as well as physical characteristics (such as temperature, salinity and wetland habitat) and summarizes the regulatory framework for each of these stressors. The ANPR solicits comment on how to best use Clean Water Act programs to improve Delta water quality. No new rules are proposed in the ANPR and the ANPR has no regulatory effect.

The Bay Delta Estuary ANPR and associated materials are available at

http://www.epa.gov/region9/water/watershed/sfbay-delta/index.html

The Bay Delta Estuary



The Bay Delta Estuary is the hub of California's water distribution system, supplying drinking water to 23 million people and irrigation water to 4 million acres of farmland. The Bay-Delta ecosystem supports 750 species of plants, fish and wildlife, making it one of the most ecologically diverse aquatic habitats on the West Coast. The Bay Delta Estuary and many of its tributaries are impaired for one or more parameters under the Clean Water Act. Estuarine habitat is shrinking and fish populations have plummeted to all -time lows. Several aquatic species are endangered or threatened under the Endangered Species Act. The system is no longer a reliable source of high-quality water, especially in the quantities demanded in recent years.

The Problem

The present condition of the Bay Delta Estuary reflects the cumulative and interactive effects of multiple physical, chemical and biological stressors, including water pollution, invasive species, water diversion and habitat degradation. Water diversions, sewage flows, storm water run-off, agricultural return flow, urban and agricultural pesticide application, and non-native species all contribute to water quality impairments. Impacts associated with water pollution include fish and invertebrate toxicity, developmental deformities, reproductive problems, and suppression of algal growth. The Bay Delta Estuary has become more hospitable to introduced and invasive species which compete with native species for limited food and alter the types and amounts of available habitat.

Water diversions for agriculture and public water supply can, at times, reduce the amount of estuarine habitat for aquatic species and interfere with chemical cues used by salmon to navigate from inland tributaries through the Estuary to the Pacific Ocean as juveniles and back as adults. In addition, the cumulative historic loss of more than 95% of tidal wetlands, floodplains, sloughs, and riparian areas destroyed important spawning areas and degraded the natural pollution filtration and flood absorbing functions that once protected the Bay Delta Estuary. Climatic trends also present challenges for managing estuarine resources, as salt water moves inland with sea-level rise and warmer water temperatures shorten spawning opportunities.

The Clean Water Act

The federal Clean Water Act charges EPA with protecting water quality for a variety of uses, such as public water supply and aquatic species habitat. EPA's mission under the Clean Water Act is to protect the biological, physical, and chemical integrity of aquatic resources in the Bay Delta Estuary. Water quality standards are established under the Clean Water Act to protect public health, welfare, and the protection and propagation of fish, shellfish, and wildlife.

The State of California, through the State Water Resources Control Board and the Regional Water Quality Control Boards, has the lead role in water quality and aquatic resource protection under the federal Clean Water Act and the State's own water quality statutes, such as the Porter Cologne Act. California protects water quality through efforts such as establishing numeric water quality criteria and developing and implementing watershed improvement plans through permits to point sources and non-point sources. These activities are described in the State and Regional Water Boards' Strategic Workplan for Activities in the Bay Delta Estuary, available at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/.

Comments and Response

Comments can be submitted electronically at the *Federal Rulemaking Portal* (http://www.regulations.gov) or in hardcopy addressed to Erin Foresman, US Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105.

EPA will consider all comments in evaluating the effectiveness of Clean Water Act programs in protecting water quality and the aquatic ecosystem in the Bay Delta Estuary and in optimizing EPA and State activities to address these challenges. Any EPA response will be designed to complement major ongoing State and federal efforts.